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| EXAMINER | |
|---|---|
| RODRIGUEZ, GLENDA P | |
| **ART UNIT** | **PAPER NUMBER** |
| 2651 | |

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/659,481 | ADAMS ET AL. | |
| | Examiner | Art Unit | |
| | Glenda P. Rodriguez | 2651 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *22 August 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-7,9,10,14-25,27,29,30,35,36,50-77,79-85 and 87-94* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *93* is/are allowed.

6)☒ Claim(s) *1-7,9,10,14-25,27,29,30,35,36,50-73,75-77,79-85,87-92 and 94* is/are rejected.

7)☒ Claim(s) *74* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

1. Claims (6, 14, 17 and 82) considered allowable subject matter in previous office action are now rejected in view of newly found prior art.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 2, 21, 22, 50, 51, 56, 58, 75 and 84 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher et al. (US Patent No. 5, 576, 906).

Regarding Claim 50, Fisher et al. teaches a data storage device comprising:

(a) Recording media having at least a recording surface for storing information according to a data storage pattern including at least one of the segments includes a start, an end and a rotational phase from that segment to each of the respective ones of all other segments in the set such that the segments have coherent relative rotational phases (Fig. 1 and explanation of Fig. 1. It is obvious to a person of ordinary skill in the art to know that information tracks has a start and an end.);

(b) At least one data transducer assembly for reading and/or writing data to the recording surface of the media (Fig. 3, Element 26);

(c) A servo circuit for controlling an actuator to position the transducer assembly at segments on the recording surface (Fig. 3, Elements 24, 60

and 58, where there are different servo circuit elements for processing a servo signal); and

(d) A controller adapted for transferring data to and from said segments on the recording surface, wherein: (1) during data storing operations in each segment, the controller controls the transducer via the servo circuit to record data in each segment, such that data is stored in the segments on the recording surface with coherent phase, and (2) during data retrieval operations from each segment, the controller controls the transducer via the servo circuit to retrieve data from each segment (Col. 8, L. 56-Col. 9, L. 18, wherein the controller as taught by Fisher controls the servo circuit as taught by Figs. 1-3 and explained in the Detailed Description of the Drawings therein).

Method Claims (1, 21, 75 and 84) are drawn to the method of using the corresponding apparatus claimed in claim (50). Therefore method claims (1, 21, 75 and 84) correspond to apparatus claim (50) and are rejected for the same reasons of obviousness as used above.

Regarding Claims 2, 22 and 51, Fisher et al. teaches all the limitations of Claims 1, 21 and 50, respectively. However, Fisher et al. further teach wherein each data segment further has: (i) a relative start phase from the start of the data segment to the start of each of the respective ones of all the other data segments in the set, and (ii) a relative end phase from the end of that data segment to each of the respective ones of all other data segments are recorded with coherent relative start phases and coherent end phases (Fig. 1 and explanation of Fig. 1. It is obvious to a person of ordinary skill in the art to

know that information tracks have a start and an end. It is obvious that if the data is written coherently from track to track, it is inherent that all tracks have a coherent start and end phase.).

Regarding Claims 56 and 58, Fisher et al. teach all the limitations of Claim 50. Fisher et al. also teach wherein each data segment includes one or more tracks or segments (See Figs. 1 and 3 of Fisher et al.).

4. Claims 4, 24, 9, 10, 29, 30, 57, 73 and 85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher et al. in view of Ton That (US Patent No. 5, 796, 543).

Regarding Claims 4, 24 and 85, Fisher et al. teach all the limitations of Claims 2, 22 and 84, respectively. However, Fisher et al. does not explicitly teach wherein the rotational phases from that data segment to respective ones of all other data segments in the set comprise the rotational phases from the end of that data segment to the start of the respective ones of all other data segments in the set. Ton-That teaches this limitation in Col. 10, L. 38-45 and L. 55-57, wherein if the data is written coherently from track to track, it is inherent that all tracks comprise a rotational phase at the end of the data segment to the start phase of the successive data segment to be coherent with respect to the other data segments in the set.. It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify Fisher et al.'s invention with the teaching of Ton-That in order to control the servo circuitry in the disk drive.

Regarding Claims 9, 29, 57 and 73, Fisher et al. teach all the limitations of Claims 56 and 1, respectively. However, Fisher et al. does not teach that data segments a offset by a predetermined skew angle. Ton-That teaches wherein the data segments are offset

by a predetermined skew angle in Col. 2, Lines 38-42, wherein said predetermined skew angle is selected to minimize rotational latency as the transducer is positioned over adjacent tracks within a data segment as seen in Col. 13, Lines 38-50, wherein Ton-That teaches that the outer diameter and inner diameter have a predetermined skew that depending on where the transducer will be positioned, that skew value will be chosen to prevent micro jogging by the transducer.

Regarding Claims 10 and 30, the combination of Fisher et al. and Ton-That teach all the limitations of Claims 9 and 29, respectively. The combination further teaches a data storage media with a spindle motor (Col. 6, L. 26 of Ton-That), a data transducer assembly positionable at concentric data track locations on the recording media by an actuator controlled by a servo circuit (Col. 5, L. 11-18 of Ton-That), and wherein a predetermined skew angle is selected to minimize rotational latency as the transducer is positioned over adjacent tracks within a data segment (Col. 13, L. 38-50 of Ton-That. Ton-That teaches that the outer diameter and inner diameter have a predetermined skew that depending on where the transducer will be positioned, that skew value will be chosen to prevent micro jogging by the transducer.).

5. Claims 5, 6 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Fisher et al. and Ton-That in further view of Mento et al. (US Patent No. 5, 483, 393).

Regarding Claims 5 and 25, the combination of Fisher et al. and Ton-That teaches all the limitations of Claims 4 and 24, respectively. However, the combination does not explicitly teach that for each data segment in the set, the rotational phase for that data

segment relative to each of the other data segments in the set has one of a limited number of predetermined values. Mento et al. teaches that each sector in the disk has a predetermined angular distance (or rotational phase) relative to the other sectors, all these values stored in a Timing and Control circuit in Col. 6, L. 35-48 and L. 48-52 (Because the values are determined and stored in the circuit, thus making the values limited and already predetermined in the system.). It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify the combination's invention in order to the servo sectors having a predetermined rotational phase in order to better control and provide adequate timing to the circuit elements in the disc.

Regarding Claim 6, the combination of Fisher et al. and Ton-That teaches all the limitations of Claim 5. The combination further teaches wherein if different zones can have different values in order to maintain phase coherence as taught by Fisher et al. in the drawings along with its description of Figs. 1A-1C and 4A-4C.

6. Claims 7 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Fisher et al. and Ton-That in further view of Kawakami et al. (US Patent No. 4, 864, 435). The combination of Fisher et al. and Ton-That teaches all the limitations of Claims 4 and 24, respectively. However, the combination does not explicitly teach that the data segments are recorded such that for each data segment in the set the relative rotational phases from that data segment to respective ones of the other data segments are the same. Kawakami et al. teaches magnetic discs wherein the rotational phases amongst the tracks are the same in Col. 17, L. 25-29). It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify the combination's

invention in order to the tracks to have the same rotational phase because the tracks can be detected by the phase sync signal when synchronously detected.

7. Claims 20, 61 and 87 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher et al. in view of Kawakami et al. (US Patent No. 4, 864, 435). Fisher et al. teaches all the limitations of Claims 1, 50 and 84, respectively. However, Fisher et al. does not explicitly teach wherein the rotational phases of that data segments to respective ones of all the other data segments in the set are predetermined independent of the start or end of that data segment. Kawakami et al. teaches this feature in Col. 17, L. 25-29 (It is obvious that if all the data segments have the same rotational phase, and then the rotational phases are predetermined and therefore independent of each other because each data segment is known.). It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify Fisher et al.'s invention in order to the tracks to have the same rotational phase because the tracks can be detected by the phase sync signal when synchronously detected.

8. Claims 15, 16, 17, 35, 79 and 80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher et al. in view of Dunphy, Jr. et al. (US Patent No. 5, 077, 736).

Regarding Claims 15, 35 and 79, Fisher et al. teaches all the limitations of Claims 1, 21 and 75, respectively. However, Fisher et al. does not explicitly teach wherein receiving one or more incoming data streams and partitioning each incoming data stream into data segments before recording on the media. Dunphy et al. teaches a disk drive memory with a control module that divides the receiving one data stream into N data

segments in Col. 4, L. 3-6). It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify Fisher et al.'s invention to receive the data and divide them into data segments in order to be able to distribute the data into other disks if a particular disk fails.

Regarding Claim 16 and 80, the combination of Fisher et al. and Dunphy et al. teach all the limitations of Claims 15 and 79, respectively. The combination further teach that the data segments received are partitioned in equal size (Col. 15, Lines 51-53 of Dunphy et al.).

Regarding Claims 17, the combination of Fisher and Dunphy et al. teach all the limitations of Claim 15. It is obvious to an artisan of ordinary skill in the art to know that zones are data segments have more than one track in size, therefore when the disk is partitioned into zones, it can contain from one to a plurality of tracks as presented by Fisher et al. in Figs. 1A-1C along with its description.

7. Claims 18 and 81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher et al. and Dunphy et al. as applied to claim 15 above, and further in view of Watanabe et al. (US Patent No. 5, 907, 408). The combination of Fisher et al. and Dunphy et al. teach all the limitations of Claim 15. However, the combination does not explicitly teach reading the recorded data segments from the storage media and reformulates it into a signal. Watanabe et al. teaches reading a data segment and outputting a signal from the data read in Col. 39, L. 6-11. It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify the combination's invention into reformulating the data segment into a signal in order to be

in a manner that could be further processed by the preamplifier and the demodulator during reproduction.

8. Claims 19, 36, 62, 83, 89, 90 and 91 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher et al. in view of Suzuki (US Patent No. 6, 208, 479).

Regarding Claims 19, 36, 83 and 89, Fisher et al. teach all the limitations of Claim 1, 21, 75 and 84, respectively. However, Fisher et al. does not explicitly teach recording the data segments on the storage media so as to obtain a deterministic data transfer rate to/from the data storage media. Suzuki teaches a read write circuit that has a clock coupled to the circuit that determines the read/write transfer rates when performing read/writing operations in Col. 2, L. 31-34. It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify Fisher et al.'s invention in order for the medium to be able to determine the transfer rate in order to adequately provide a timing signal to synchronize the data with the read/write circuits.

Regarding Claims 90 and 91, Fisher et al. teaches a method comprising:

> Recording at least one set of data segments onto said recording surface, each recorded data segment including a start, an end and a rotational phase from that data segment to each of the respective ones of all other data segments in the set, wherein the data segments are recorded with coherent relative rotational phases (Col. 8, L. 56-Col. 9, L. 18 and Figs. 1-3 and the explained in the Detailed Description of the Drawings therein), wherein each data segment includes one or more tracks,

However, Fisher et al. does not explicitly teach recording the data segments on the storage media so as to obtain a deterministic data transfer rate to/from the data storage

media. Suzuki teaches a read write circuit that has a clock coupled to the circuit that determines the read/write transfer rates when performing read/writing operations in Col. 2, L. 31-34.

9. Claims 53, 54, 59, 76, 82, 92 and 94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher et al. in view of Mento.et al. (US Patent No. 5, 483, 393).

Regarding Claims 53 and 59, Fisher et al. teaches all the limitations of Claims 51 and 58, respectively. However, Fisher et al. does not explicitly teach that for each data segment in the set, the rotational phase for that data segment relative to each of the other data segments in the set has one of a limited number of predetermined values. Mento et al. teaches that each sector in the disk has a predetermined angular distance (or rotational phase) relative to the other sectors, all these values stored in a Timing and Control circuit in Col. 6, L. 35-48 and L. 48-52. It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify Fisher et al.'s invention in order to the servo sectors having a predetermined rotational phase in order to better control and provide adequate timing to the circuit elements in the disc.

Regarding Claims 54 and 76, the combination of Fisher et al. and Mento et al. teach all the limitations of Claim 53 and 75, respectively. The combination further teach wherein the step of recording the data segments further includes the steps of recording the data segments such that for each data segment in the set: the relative rotational phases from that data segment to respective ones of a first subset of the data segments in the set have another of said predetermined values in Col. 6, L. 35-48 and L. 48-52 of Mento et

al., wherein it teaches that each sector has a predetermined angular distance between each sector, and all these values are stored in a Timing and Control circuit.

Regarding Claim 62, Fisher et al. teach all the limitations of Claim 50. However, Fisher et al. does not explicitly teach recording the data segments on the storage media so as to obtain a deterministic data transfer rate to/from the data storage media. Suzuki teaches a read write circuit that has a clack coupled to the circuit that determines the read/write transfer rates when performing read/writing operations in Col. 2, L. 31-34).

Regarding Claims 82, Fisher et al. teaches all the limitations of Claim 75. Fisher et al. further teaches wherein if different zones can have different values in order to maintain phase coherence as taught in the drawings along with its description of Figs. 1A-1C and 4A-4C. However, Fisher et al. does not explicitly teach that for each data segment in the set, the rotational phase for that data segment relative to each of the other data segments in the set has one of a limited number of predetermined values. Mento et al. teaches that each sector in the disk has a predetermined angular distance (or rotational phase) relative to the other sectors, all these values stored in a Timing and Control circuit in Col. 6, L. 35-48 and L. 48-52 (Because the values are determined and stored in the circuit, thus making the values limited and already predetermined in the system.).

Regarding Claims 92 and 94, Fisher et al. teach a method, comprising:

> Recording at least one set of data segments onto said recording surface, each recorded data segment including a start an end and a rotational phase from that data segment to each of the respective ones of all other data segments in the set, wherein the data segments are recorded with coherent relative rotational phases, wherein each data segment includes one or more

> tracks, wherein the data segments are recorded such that each data segment further has: (i) a relative start phase from the start of that data segment to the start of each of the respective ones of all other data segments in the set, and (ii) a relative end phase from the end of that data segment to each of the respective ones of all other data segments in the set, wherein the data segments are recorded with coherent relative start phases and coherent relative end phases (Fig. 1 and explanation of Fig. 1. It is obvious to a person of ordinary skill in the art to know that information tracks have a start and an end. It is obvious that if the data is written coherently from track to track, it is inherent that all tracks have a coherent start and end phase.),

Fisher et al. further teaches wherein if different zones can have different values in order to maintain phase coherence as taught in the drawings along with its description of Figs. 1A-1C and 4A-4C. However, Fisher et al. does not explicitly teach that for each data segment in the set, the rotational phase for that data segment relative to each of the other data segments in the set has one of a limited number of predetermined values. Mento et al. teaches that each sector in the disk has a predetermined angular distance (or rotational phase) relative to the other sectors, all these values stored in a Timing and Control circuit in Col. 6, L. 35-48 and L. 48-52 (Because the values are determined and stored in the circuit, thus making the values limited and already predetermined in the system.).

10. Claim 55 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher et al. and Mento et al., as applied to claim 53 above, and further in view of Kawakami et al.

(US Patent No. 4, 864, 435). The combination of Fisher et al. and Mento et al. teach all the limitations of Claim 53. However, the combination further teach that the data segments are recorded such that for each data segment in the set the relative rotational phases from that data segment to respective ones of the other data segments are the same. Kawakami et al. teaches magnetic discs wherein the rotational phases amongst the tracks are the same in Col. 17, L. 25-29. It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify the combination's invention in order to the tracks to have the same rotational phase because the tracks can be detected by the phase sync signal when synchronously detected.

11. Claims 14, 60, 77 and 88 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher et al. in view of Hull et al. (US Patent No. 5, 596, 196).

Regarding Claim 14, Fisher et al. teaches all the limitations of Claim 1. However, Fisher does not explicitly teach wherein transferring data at a constant rate. Hull et al. teaches this limitation in Col. 1, L. 42-53. It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify Fisher et al.'s invention with the teaching of Hull et al. in order to improve performance as taught by Hull et al.

Regarding Claims 60, 77 and 88, Fisher et al. teach all the limitations of Claim 50, 75 and 84, respectively. However, Fisher et al. does not explicitly teach that the zones are recorded in a concentric manner. However, this feature is well known in the art as disclosed by Hull et al., wherein it teaches data being recorded in the disc in concentric zones in Col. 3, L. 12-18. It would have been obvious to a person of ordinary skill in the

art, at the time the invention was made, to modify Fisher et al.'s invention in order for the disk to have concentric zones in order for the disk to achieve constant data density in a disk.

12. Claims 3, 23, 52, 63-66 and 68-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher et al. in view of Gaertner et al. (US Patent No. 6, 445, 531).

Regarding Claims 3, 23 and 52, Fisher et al. teaches all the limitations of Claims 2, 22 and 51, respectively. However, Fisher et al. does not explicitly teach that rotational phases of that data segment to respective ones of all other data segments in the set are predetermined. Gaertner et al. teaches that the rotational phase of each data segment is predetermined in Col. 4, L. 55-61). It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify Fisher et al.'s invention in order for the medium to have those parameters in its seek profile in order to determine the optimum seek profile.

Regarding Claim 63, Fisher et al. teach all the limitations of Claim 50. However, Fisher et al. does not explicitly teach a seek profile based on the seek distance and the seek time based on the rotational phase. Gaertner et al. teaches a seek profile based on the distance between the target track and destination track and the seek time based on the phase difference between tracks in Col. 6, L. 1-4 and L. 60-67.

Regarding Claim 64, the combination of Fisher et al. and Gaertner et al. teach all the limitations of Claim 63. The combination further teach constraints such that: (1) each seek operation is completed at the expiration of the respective seek time, and (2) for at

least one set of seek distance, the respective seek times are predetermined See Fig. 2, Element 440 of Gaertner et al.

Regarding Claim 65, the combination of Fisher et al. and Gaertner et al. teach all the limitations of Claim 64. The combination teaches wherein that for one present track to a destination track, they calculate many seek profiles within a predetermined time Col. 3, L. 28-40 of Gaertner et al.

Regarding Claim 66, the combination of Fisher et al. and Gaertner et al. teach all the limitations of Claim 64. The combination teach wherein a look-up table that stores velocity profiles according to a seek profile determined (Col. 8, L 21-36 of Gaertner et al.).

Regarding Claim 68, the combination of Fisher et al. and Gaertner et al. teach all the limitations of Claim 64. The combination teach wherein a seek profile based on the distance between the target track and destination track and the seek time based on the phase difference between tracks Col. Col. 6, L. 1-4 and L. 60-67 of Gaertner et al.

Regarding Claim 69, the combination of Fisher et al. and Gaertner et al. teach all the limitations of Claim 64. The combination further teach wherein a seek operation is based on a rotation time from the end of the starting segment to the start of the destination segment Col. 6, L. 1-4 and L. 60-67, Col. 11, L. 25-32 and L. 51-54 and Col. 11, L. 66 to Col. 12, L. 7 of Gaertner et al.

Regarding Claim 70, the combination of Fisher et al. and Gaertner et al. teach all the limitations of Claim 63. The combination further teaches wherein each segment in the set has a relative start, end and rotational phase are predetermined Col. 6, L. 1-4 and L. 60-67, Col. 11, L. 25-32 and L. 51-54 and Col. 11, L. 66 to Col. 12, L. 7 of Gaertner et al.

13. Claim 67 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher et al. and Gaertner et al. as applied to claim 64 above, and further in view of Tam et al. (US Patent No. 5, 412, 809). The combination of Fisher et al. and Gaertner et al. teach all the limitations of Claim 54. However, the combination does not explicitly teach wherein a controller further obtains an actuator current level and transducer motion based in the seek time and distance. Tam et al. teaches a current controller for providing a drive current to the actuator assembly is determined based on a seek profile to effect the new access time and positions specified in Col. 11, L. 62 to Col. 12, L. 8. It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify the combination's invention in order for the medium to set the current according to the seek time specified by the user.

14. Claim 71 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher et al. and Gaertner et al. as applied to claim 64 above, and further in view of Dunphy et al. (US Patent No. 5, 077, 736). The combination of Fisher et al. and Gaertner et al. teach all the limitations of Claim 64. However, the combination does not explicitly teach wherein receiving one or more incoming data streams and partitioning each incoming data stream into data segments before recording on the media. Dunphy et al. teaches a disk drive memory with a control module that divides the receiving one data stream into N data segments in Col. 4, L. 3-6. It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify the combination's invention to receive the data and divide them into data segments in order to be able to distribute the data into other disks if a particular disk fails.

15. Claim 72 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher et al. Gaertner et al. and Dunphy et al. as applied to claim 71 above, and further in view of Price et al. (US Patent No. 6, 384, 998). The combination of Fisher et al., Gaertner et al. and Dunphy et al. and teach all the limitations of Claim 71. The combination does not explicitly teach reading the recorded data segments from the storage media and reformulates it into a signal. Price et al. teaches that when data segments are read from the medium it reformulates it into a stream of data in Col. 5, L. 33-35. It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify the combination's invention in order to be able to read the data segments and convert these segments into streams in order to read the data in the disk.

***Allowable Subject Matter***

16. Claim 74 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding Claim 74, the primary reason for allowable subject matter is the inclusion of wherein the rotational phase is $R = 360 - (N-1) \times \alpha$, where N is the number of tracks in a data segment and where $\alpha$ is the skew angle between tracks within a data segment.

17. Claim 93 is allowed.

The following is a statement of reasons for the indication of allowance:

Regarding Claim 93, the primary reason for allowancer is the inclusion of wherein the rotational phase is $R = 360 - (N-1) \times \alpha$, where N is the number of tracks in a data segment and where $\alpha$ is the skew angle between tracks within a data segment.

***Response to Arguments***

18. Examiner acknowledges that Claims 8, 11-13, 26, 28, 31-34, 37-49, 78 and 86 have been cancelled in the Applicant's Amendments filed on 2/23/04 and 8/22/05

19. Applicant's arguments with respect to claims 1-7, 9, 10, 14-25, 27, 29, 30, 35, 36, 73-77, 79-85 and 87-94 have been considered but are moot in view of the new ground(s) of rejection due to the newly amended Claims.

20. Applicant's arguments with respect to claims 50-72 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Glenda P. Rodriguez whose telephone number is (571) 272-7561. The examiner can normally be reached on Monday thru Thursday: 7:00-5:00; alternate Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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10/28/05.

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